



# NASA Operation IceBridge Site Visit / Orientation Packet Ushuaia, Argentina

Antarctic 2018

Prepared by: Eugenia De Marco September 26, 2017

UPDATED: August 20, 2018

## **Contents**

1	INTRODUCTION				
2	CULTU	RAL SENSITIVITIES	4		
	2.1 Bue	enos Aires (the capital)	4		
	2.2 Ush	nuaia (project location)	4		
	2.3 Fall	kland Islands	5		
3	TRANS	IT / TRANSPORTATION	5		
	3.1 Cor	nnecting Transportation Logistics BsAs - Ushuaia	5		
	3.1.1	Tienda Leon	5		
	3.1.2	Taxi Ezeiza	6		
	3.1.3	Uber	6		
	3.1.4	Remis	6		
	3.2 Tra	nsportation in Ushuaia	6		
	3.2.1	Available forms of Transportation	6		
	3.2.2	Driving in Ushuaia	7		
	3.2.3	Parking	7		
4	HOTEL	*	9		
	4.1 Roo	oms	9		
	4.2 Am	enities	9		
	4.2.1	Food and Drink at Hotel	9		
	4.2.2	Laundry	9		
	4.2.3	Shuttle	10		
	4.2.4	Meeting spaces	10		
5	USHUA	IA AIRPORT / FBO	10		
	5.1 Lay	out	10		
	5.1.1	Terminal	11		
	5.1.2	FBO	11		
	5.1.3	Runway	11		
	5.1.4	Ground Instrument Locations	12		
	5.2 Air	port Ops	12		
	5.2.1	Hangar / Ramp	12		
	5.2.2	Hours of Operation	13		
	5.2.3	Fuel and Gas	13		
	5.2.4	GSE	13		

	5.2	.5 Weather and Flight planning	13
	5.3	Security and Access Requirements	14
6	LO	CAL ITEMS	14
	6.1	Customs/Immigration	14
	6.2	Shipping	14
		Communication	
	6.4	Money	15
	6.5	Power	16
	6.6	Medical/Hospital	16
	6.7	Shopping	16
	6.8	Food	16

#### 1 INTRODUCTION

This document was created to serve as a guide for airborne science project teams traveling to Ushuaia, Argentina for project deployment. Argentina is a very (environmentally) diverse country, with Ushuaia being its southernmost point, nicknamed "Fin del Mundo" (which mean "The end of the world"). As such it can be very cold, and weather can change quickly as it has mountains to the west and the Antarctic winds coming up from the southeast. Argentina does not observe daylight savings time, which means Ushuaia will always be 1 or 2 hours ahead of US Eastern Time. Ushuaia is a tourist town, so it is common to find locals who speak some form of English, although you may encounter someone that knows no English at all.

If you are flying to Ushuaia via commercial (i.e. not on a NASA aircraft), you will have to have a layover in Buenos Aires where you will undergo customs and immigration clearance. This document covers a few things regarding the capital as well as the transfer you will most likely need between airports at the capital in order to take your final leg to Ushuaia.

#### 2 CULTURAL SENSITIVITIES

There are various cultural sensitivities one should be aware of when traveling to Argentina. These will vary wildly depending on what region of the country you are in.

## 2.1 Buenos Aires (the capital)

Argentina has a population of around 40 million people, almost half of which live in the capital. This means that it's a very dense city with loads of traffic and not very many highways. Argentina is popularly known for beef and wine, and unpopularly known for its swindlers. While in Buenos Aires, avoid taking taxi rides from taxis at the curb or in the street. Use Uber, a remis service, or hotel shuttle to get around. Please refer to the transport/transit section for tips and advice for each form of transportation. You may also carry your purse want to carry your bag/purse in front of you or clutched at your side and never on your back (or not carry one with you). If only using your pockets, refrain from using any back pockets. Avoid walking around at night, especially by yourself, unless in a well-lit, populated area.

## 2.2 Ushuaia (project location)

Ushuaia is a tourist town far away from the capital, and thus people here are much nicer than those in the capital. There is no worry about swindlers as there is in Buenos Aires. You can carry a bag without a problem, and taxis can generally be trusted. You can walk around at 2 am and feel safe. The town thrives on tourism, so they take care that the tourism business is not marred by bad experiences.

#### 2.3 Falkland Islands

The Falkland Islands war was fought in the early 80's between England and Argentina. Although Argentina lost the war, most Argentinians refuse to acknowledge the islands as British. They do not even call them Falklands but rather "Las Malvinas". Ushuaia is where the military based its war efforts which means that many locals either fought in the war or know someone that did. Ushuaia is the capital of the Tierra del Fuego province (which is the closest province to the islands), and they believe the Malvinas (or Falklands) are part of their provincial territory. Many things in Ushuaia (including the airport) have "Malvinas" in its name. This is a very sensitive subject throughout the country, but especially in Ushuaia. It is recommended that you do not bring the subject up in conversation, and definitely do not use the term "Falklands" around any of the locals, not even as a joke. Some will be ok with this, but they are in the minority.

## 3 TRANSIT / TRANSPORTATION

Transit around both Ushuaia and Buenos Aires is fairly accessible. More care needs to be taken when traveling locally around Buenos Aires than there is around Ushuaia. If flying commercial, you will most likely end up needing some form of transportation in both Buenos Aires and Ushuaia.

## 3.1 Connecting Transportation Logistics BsAs - Ushuaia

When travelling commercially to Ushuaia from outside of Argentina, you will have to do a layover in Buenos Aires. Bs. As. has two airports: Ministro Pistarini International Airport (aka Ezeiza - EZE) and Aeroparque Jorge Newberry (aka Aeroparque – AEP). All flights from the US will come into EZE, and almost all flights to Ushuaia will leave out of AEP. Assume you will have to change airports. The key is to secure your transportation leaving the airport BEFORE walking outside.

**NOTE:** there are some flights that go from EZE to Ushuaia, and they are usually flown by the national airline: Aerolineas Argetninas. It is recommended that you find a flight with LATAM (the other airline that flies into Ushuaia), even if the flight is a little more expensive. The reason being that Aerolineas Argentinas will sometimes go on strike without much notice, and this can cause potential travel issues for you and your team.

There are a couple of ways to get from one airport to the other. One thing you should know: **do not take a ride from the curb in Buenos Aires** unless they were called for you (either through the registered taxi or shuttle stands inside, Uber, or a car service):

#### 3.1.1 Tienda Leon

This company has a shuttle service between airports. They also have registered taxis and remises that can also be trusted. When you come out of customs and just before walking into the general airport area to go outside, there will be stands to your left for Tienda Leon (main level of Ezeiza) where you can get a ticket to AEP. This should be around 200 pesos (2017 cost). The sign will look something similar to this (just look for the lion):



#### 3.1.2 Taxi Ezeiza

This is your best option for a taxi from the airport. After you leave customs and walk into the general airport area, there will be stand on your way to the doors leading outside (towards the left) where you can prepay to get a taxi. All others taxis outside will most likely try to swindle you so only go with this taxi option. If you must take a different cab, make sure you take one that actually has a taxi sign on top (a radio taxi...there will be plenty), and ask for an estimate of the fare before you get in. That way there's less chances of them running up the meter or give you excuses for charging you extra. The taxi Ezeiza stand looks like this:



#### 3.1.3 Uber

Uber is available to tourists throughout Buenos Aires. It is still fairly new, so it may take a few extra minutes to get one to show up. They may ask you to sit up front, and it's in your benefit to do so. The taxi drivers really like to give Uber drivers a hard time. If you sit up front, it looks like they're picking up a friend rather than taking a fare.

#### 3.1.4 <u>Remis</u>

A "remis" (reh-MEES) is a paid car service. They are more expensive, but more trustworthy than taxis. Tienda Leon offers these as well as a few others.

#### 3.2 Transportation in Ushuaia

The roads in Ushuaia are in Transportation around Ushuaia will vary depending on the destination.

#### 3.2.1 Available forms of Transportation

There are various forms of transportation to get around Ushuaia, and they are all pretty decent.

#### 3.2.1.1 Rental car

A rental car is the most convenient form of travel in Ushuaia. The number of rental cars available are small, and thus sharing cars will be the only option. Most rental car companies are local and do not have a website. Eurocar and Avis may be able to provide you with a

rental car via a website, but it is very difficult and the stands are not always open. The FBO has contacts with local rental car companies that will meet you at the airport as soon as you land and have a car and paperwork ready for you. The local company that NASA has used before is called Senda.

#### 3.2.1.2 Taxi

Taxis are common in Ushuaia and can be trusted. A taxi should cost around 150-160 pesos (2017 cost) from the hotel to the downtown area. Make sure to have smaller bills when taking a taxi. Often times they will not have change (or claim they don't). The hotel front desk can assist in calling you a taxi if you need one.

#### 3.2.1.3 Remis

A remis is like a car service and a common form of transportation in Argentina. They are a little more expensive than a taxi and have to be called (cannot hail one on the side of the road). These are typically nicer cars and are more trustworthy than taxis. The hotel can help you call one.

#### 3.2.1.4 Hotel shuttle

The hotel offers a shuttle to and from the city free of charge. It leaves about once an hour, and the hotel will have leaflets with available times as well as pick up and drop off location. The shuttle seats about 17 people.

#### 3.2.1.5 Uber

If there are any Uber in Ushuaia, they are very few and far between. Do not rely on this as a form of transportation

## 3.2.2 <u>Driving in Ushuaia</u>

The road rules are a bit different than in the US, and potholes are extremely common. The roads are in bad shape as they have been significantly weathered by snow and rain. Some have been re-paved, but not all. Ushuaia is at the end of the mountain range and as such some areas are quite hilly. Most of the north-south streets will be on an incline (low at the south, high at the north end). Most east-west roads are fairly level.

Ushuaia has many intersections and almost no stop signs or streetlights. There are very few that have a "yield" sign (upside down triangle with the word "cede"). If you do not see any signs anywhere and are coming across an intersection, the rule of thumb is that the person on the steepest road has right of way, or the person on the right has right of way (if steepness is equal). Therefore, if you are on a north-south road, you will probably have right of way. If there is someone to your right at the intersection, they will have right of way. Also note that speed limits are lower in Argentina than they are in the US.

## 3.2.3 <u>Parking</u>

The hotel and the airport both have ample parking; so using the rental cars for driving between these two locations will not be a problem (est. 15-20 min travel time depending on weather). The downtown area is not too big and has some street parking. You will notice "meter maids" in red jackets handing out what seems to be tickets. These are not tickets, but rather parking passes. They will put it on your car with your start time, and you pay them when you are done parking. Price will depend on how long you parked for. Parking

can be difficult to come by in the downtown area, but the North/South streets tend to have more parking, and so do the streets at the edge of downtown.

There are many variations of a "no parking" sign, some of which are conditional. If you have doubts, just don't park there. You can find parking a few blocks off the main downtown area. You will know because there are no parking signs of any kind (whether "parking" or "no parking") and you will see parked cars. Below are some examples of conditional or no parking signs (did not capture all). Brief description of each one is as follows (in order from left to right):

- 1. No parking except for maintenance vehicles
- 2. Parking only for dropping off and picking up of passengers
- 3. No parking during school hours listed here
- 4. Parking exclusively for government vehicles (could be exclusively for someone else in a different area of town)









Below is an example of signs that allow parking at any time. The one on the left has the condition that you can park there but only at a 45-degree angle. These signs are not prevalent throughout town.





## 4 HOTEL\*

There are several hotels in Ushuaia, many of which are near or in the downtown area. These hotels tend to be smaller and have no parking available. Two of the biggest hotels are up on the mountain, away from downtown but still just a 15-20 minute drive to the airport. These are owned by the Tremun Hoteles group and they are: Las Hayas (5-star) and Los Acebos (4-star). These two hotels are nicely located close enough to the airport as well as downtown, but far enough away in a calmer area of town. They have agreed to give NASA a special rate that falls under government per diem (both in 2017 and in 2018). They are located about a minute drive from each other, and connected via a walking trail. If for some reason there is only partial room in one, they can accommodate the rest of the team in the other.

#### 4.1 Rooms

The rooms all have a fridge, but no coffee pot. Microwave is not a big part of the culture down there, so you will not find these in the rooms. There is, however, a bar with generous operating hours that serves coffee, tea, alcoholic beverages, as well as a limited food menu.

#### 4.2 Amenities

Both hotels will have a gym available, restaurant, full breakfast, internet, meeting rooms, and other amenities such as activities like archery and evening hikes through the area. There is also a mini movie theater that shows a different movie every night.

#### 4.2.1 Food and Drink at Hotel

#### 4.2.1.1 Breakfast

Breakfast is included in the hotel, but it may not be open early enough for some of the flight schedules. Special arrangements can be made to have some form of breakfast for the aircrew that needs to leave earlier than everyone else. A list with number and names of people requiring early breakfast will need to be submitted to the front desk no later than 5 pm\*\*. Rooms do have fridges that are normally wet bar items, but a request can be made to have housekeeping empty the fridge in order to use for groceries or other personal food items.

#### 4.2.1.2 Restaurant and Bar

The hotel has a bar and a restaurant, both of which serve food. The restaurant is only open during certain hours, but the bar is open for a greater portion of the day and serves food as well as drinks. Please note that the hotel may not allow you to drink your own beer in the common areas/lounges if they are the same brand offered at the bar.

#### 4.2.2 <u>Laundry</u>

There is no on-site laundry facilities for personal use. There is, however a laundry service available where housekeeping washes your clothes. This is at a cost, and it is estimated to be around \$9 USD a load (pricing may have changed). There are a few laundromats in the city that are cheaper, and not too far from the hotel. This is not self-service. You will have to

drop off your clothes and come pick it up the next day (or same day if you drop it off early enough and get lucky).

#### 4.2.3 Shuttle

The hotel offers a free hourly shuttle service into town and back to the hotel. It can take up to 17 people at a time and no reservations need to be made. This is free of charge. The concierge will have a flyer with the hours available.

#### 4.2.4 Meeting spaces

The hotel has various open meeting spaces that can be used for impromptu meetings or the daily briefings. They have also offered a variety of conference rooms of varying sizes for whatever meeting needs may arise. If a projector is needed, they can see of providing one, but it may be best if the project office brings a small portable one along.

## 5 USHUAIA AIRPORT / FBO

The Ushuaia airport is not very big, but it is well stocked with services. There are two main airlines that operate out of Ushuaia: Aerolineas Argentinas and LATAM. Both of these airlines will also bring cargo (FedEx/UPS/etc.) on their commercial flights. Anything that is too large to fit in a 737 cargo old will have to be shipped via sea or ground (or a combination of both). The FBO also helps manage the LATAM flights, so it is intimately familiar with the ins and outs of the ops and scheduling of the airport.

## 5.1 Layout

The airport consists of a terminal with both paved and dirt parking, one hangar that is owned by the provincial government, a standard tower, and a runway that runs east-west. Additionally, there are other structures such as a basic machine shop, maintenance buildings, a fire station, and fuel tanks.





#### 5.1.1 Terminal

The terminal consists of only a few jet ways. There is one main duty-free shop inside as well as a kiosk with snacks and drinks. These are only open around the arrival and departure times of incoming and outgoing flights. They will be closed at some points in the middle of the day, but will reopen. There is also a little restaurant that is open more consistently as it not only services passengers, but the airport staff as well.

In the terminal you will also find the airport chief's office, the FBO office, and the chief of Security's office. These areas are not available to the whole team, but they are freely accessible by your team's management if needed. It is recommended to only have one or two POC's on the team to access these areas, preferably Spanish speakers as neither the airport chief, chief of security, nor half the FBO are fluent in English.

#### 5.1.2 FBO

The Ushuaia FBO is called World's End. Fabian Arguello and Jose Roggeri are the FBO leads. Fabian deals with any financial agreements as well as the Flight Dispatcher and Service Manager, and assists with pushing the flight plans through the system. Jose is the Logistics Manager and our day to day POC as he is fluent in English.

#### 5.1.3 <u>Runway</u>

There is only one main runway in the Ushuaia airport and it runs east-west. When looking at satellite imagery, you will notice a runway running north-south. This is not connected to

the airport and it is owned by the Argentine Navy. This runway should not be considered for any ops, including emergency, as it is shorter and not well maintained. It is also on a military base, which comes with its own difficulties as it is a foreign military.

**Runway Length:** 2800m x 45m (9,186ft x 147ft) **Elevation:** RWY 7 (West) is 85ft, RWY 25 (east) 73 ft.

**Coordinates:** RWY 7: 545038.577S; 0681852.741W (-54.8440492°, -068.3146503°) | RWY

25: 545033.266S; 0681635.295W (-54.8425739°, -068.2764708°).

Displaced Threshold RWY 07 180M; RWY 25 160M.

RWY 25 Track strip southern sector reduced to 75m due to unevenness. RWY 25 track strip northern sector, between progressives 350 and 1200, reduced to 75m due to unevenness.

Weather conditions change here rapidly, as the wind pushes from Antarctica and there is a large mountain chain to the north of the town. The aircraft approach 98% of the time from the east. This approach is free of any obstructions.

#### 5.1.4 Ground Instrument Locations

There are various possible locations for the installation of the ground instrument equipment (GPS/Magnetometer). These, as well as the layout of the airport facilities, can be found in the "Ushuaia Airport Layout" PowerPoint.

## 5.2 Airport Ops

NASA Aircraft will park on the east ramp, which is usually empty. It would be common for the NASA aircraft to be the only one on the ramp for the duration of the campaign, with the occasional private or military plane staying overnight. There should be no construction being performed on any of the facilities while we are in Ushuaia for the entirety of the campaign.

#### 5.2.1 <u>Hangar / Ramp</u>

The east ramp is connected to the hangar facility, which is owned by the provincial government. It is available for us to use in emergency situations to work maintenance issues, if the NASA aircraft fits (P-3 fits, DC-8 does not), but is not available for daily use.

The meeting room in the hangar is one large 10ft by 20ft room we can utilize. It has 5 desks with multiple chairs each, as well as a dry-erase board. There's a little kitchen area (microwave, coffee pot, hot water heater, sink, some cups and cutlery, etc.). It has various electrical outlets, and more can be supplied via an extension cord from the storage room next door (there's grating in the upper part of the dividing wall that allows for cable pass-through). There is decent Wi-Fi available in this office space.

There's also a "VIP" room that they do not want us to use long-term, but we can use for short periods. There is also a flight planning room in the hangar. We may be able to get access to either of these two locations for aircrew pre-flight briefing and post-flight debrief. The hangar houses medical transport aircraft. We will be able to house cargo that is not in the container inside. IF anything in the container requires to be inside the hangar,

arrangements can also be made for that. Any containers or flat racks will be housed outside.

The ramp itself has a power source near it. This can be used to power the ground GSE instrument stations as well as the onboard gravimeter that requires 24 hour power. A guard shack can (and has been) moved to this location to have shelter for 24-hour fire watch.

#### 5.2.2 Hours of Operation

Hours of Operations are as follows:

Airport Terminal Service: 0600 to 0000 local

Fuel Service: 0600 to 0000 local; Jet-A with 3ea 400,000L tanks

AIS - Flight Pans Office: 0600 to 0000 local

Security: 24 Hours

Weather Forecast Office: 0600 to 0000, periods of validity is 24 hrs.

#### 5.2.3 Fuel and Gas

Fuel is provided by YPF and is Jet-A and does not have the Prist additive but, they have 48 liters of Prist available and if we need more, we must let them know so they can have more shipped from Buenos Aires. The de-icing agent is Clariant Safewing Type MP IV and they have operators certified to perform. They follow FAA guidelines for Fuel and de-ice operations. The aircraft may or may not need to be inspected and fumigated upon arrival in Ushuaia.

Nitrogen and Oxygen are available, but need a few day's heads up. The supply comes from the hospital, and it may be a bit pricey, but they can have it available if needed.

#### 5.2.4 GSE

The FBO has GSE available for use. It includes a power cart with DC and AC, air start unit, ground heaters, lav service, maintenance stands, tugs, de-ice truck, and large tow tractor. They also have baggage units, fork lifts and loaders to help us remove large items off of the aircraft. There I a 12-ton crane locally we can rent (from the port). There is no air conditioning in all of Tierra del Fuego (the province). If there is a major requirements, one will need to be shipped from Buenos Aires, and even those are not reliable from what we are told. We will need to ship a tow bar, as they do not have a tow bar for us to utilize while there.

#### 5.2.5 Weather and Flight planning

#### 5.2.5.1 Weather

The weather office at the airport does not have any forecasters. They can provide 1-hr and 6-hr forecast information (cloud cover/winds at altitudes/etc.), but they are made up of data received from other stations. All they do in Ushuaia is provide the data and have "observers" present in case of questions.

The Servicio Meteorologico Nacional (SMN), which is equivalent to the National Weather Service, may be able to station someone in Ushuaia if needed. They needs to know very early on, and it will most likely be someone who is not intimately familiar with the local weather. If not, they can produce additional data from two other locations:

Comodoro: provide give forecast for the Ushuaia and Tierra del Fuego region (down to 60 deg lat)

Marambio: their Antarctic base that has weather products for the Antarctic region. (south of 60 deg lat)

Both of these stations are reachable by phone and are available 24 hours a day. They are happy to set up daily telecoms with us.

#### 5.2.5.2 Flight planning

Flight-planning office is found in the terminal and will file flight plans. The tower is east of the hangar (and east of the terminal). This houses ATC as well as the weather office. Flight plans must be signed and stamped with your own personal stamp (name/position/org). These stamps are very common in Argentine culture. If pilots do not have these, they can sign and the FBO will stamp on our behalf. The flight plans are submitted to the FBO, and can be done via WhatsApp from the hotel. They will get the process moving while the aircrew does pre-flight. The original will be picked up from the hangar/plane by the FBO who will do the legwork for us.

## **5.3** Security and Access Requirements

There is a guarded gate that leads to the hangar and east apron. In order to pass through this gate, ID must be provided and cleared with security. A list of crew (air and sci) will be provided to the head of security and airport chief ahead of time to receive clearance to go through the gate. A NASA badge can be presented at the gate and they will check it with their approved list. If a NASA badge cannot be provided, a passport will also work.

#### 6 LOCAL ITEMS

## 6.1 Customs/Immigration

Customs and immigration can be cleared in Ushuaia, as it is an international airport. The local immigration office in Ushuaia has informed us we will need to have embassy authorized documentation with a roster of all working for OIB. This will be taken care of by the PSO PM. US citizens do not need visas, but any foreign national supporting OIB will need a visa to enter Argentina.

## 6.2 Shipping

The shipment of items can be handled through a contracted shipper \_\_\_\_\_. We will need a listing of all items with a full description of what is being shipped, to include

dimensions and weights. This will need to be given to \_\_\_\_\_\_ no later than 30 days out (along with Fabian and Jose), and ensure we communicate with the embassy so all items are able to clear customs easily. We must keep all in the loop at all times to ensure its smooth transition. We will also need to provide a listing of everything coming on the aircraft.

#### 6.3 Communication

The 4G signal in Ushuaia is surprisingly strong and with the Verizon mifi unit, internet speed is good. Folks have been able to utilize the FPN and access NAMIS with pretty good speed. There are three local companies and the #1 company in Ushuaia is MoviStar. US phones with international plans work great, have a 4G connection most of the time as they ping off the local providers. There may be a slight lag in phone reception some of the time, but mostly in the hotel when there is a high usage of signal. Downtown the signal is great and in the airport facility.

The prevalent Internet and cell service provider in Ushuaia is MoviStar. The hotel has and hangar both have decent internet, although it could get bogged down at night when everyone is using it. The project office is also working in brining several hotspots available for use to the instrument teams as a backup.

Verizon, AT&T and T-Mobil all ping off of MoviStar. The signal varies between 3G and 4G depending on the area of the city. Check with your service provider with regard to international usage fees.

Whatsapp is the most widely used way of communication between locals. If you don't already use it, you may want to download it on your phone. You can text and make phone calls (worldwide to another whatsapp user) for free when hooked to an Internet service. The locals use WhatsApp for almost all of their communications, especially Jose and Fabian at the FBO. If you need a quick answer the will respond almost instantly over this app.

#### 6.4 Money

The country currency is the Argentine peso. The current exchange rate is 31 pesos per \$1 USD when exchanging in country, or around \_\_\_\_\_ pesos per 1 USD when exchanging here in the United States (exchange rates subject to change slightly by the time we get there). If flying through Buenos Aires, the recommendation is to exchange money in the airport at one of the bank stands. The best one is Banco Nacion, although it could have a long line. Banco Piano is another bank that has an exchange booth in there (really just look for the word "banco" which means "bank"). I highly discourage the use of the Global exchange booth as they will have horrible rates as the ones in the US. If flying directly to Ushuaia, the only place to exchange money is at the bank, which is accessible. ATMs are also safe to use, but check with your bank as to the fees you may get charged for using it. There is one ATM at the airport, but several banks/ATMs downtown. Cash is not as easily available sometimes in Ushuaia due to its remote location, so if laying over in Buenos Aires, I suggest

getting some there. When withdrawing from an ATM in Ushuaia, withdraw in smaller amounts as the ATM may not be fully stocked.

Most local stores in Ushuaia will accept American dollars. There is a chance that they will charge you more when paying with dollars since it will be for their benefit to do so. Many local stores also take your regular credit cards, and they will be charged with argentine pesos unless stated otherwise. The smaller shops may want you to pay in cash, so have some handy just in case.

#### 6.5 Power

The local power is 220-240V. There are two different types of outlets: the Europe/Russia CEE7/16 europlug and the Australia/China AS-3112 plug.



From left to right: CEE7/16, plug AS-3112 plug w/o ground pin, AS-3112 plug with ground pin.

## 6.6 Medical/Hospital

The local water is potable, but, as in most of the world, bottled water is king and can be found in plenty of areas. Hospitals in Ushuaia have an old infrastructure, but are generally okay. Vaccines are not required. There are zero mosquitoes in Ushuaia, so there is zero risk of Zika. There are stray dogs everywhere, and they seem to be well fed. There is a medic/clinic at the airport for airport employees, and they have offered its services to our team should we need them while there. Pharmacies are accessible throughout Ushuaia and some are even open on Sundays.

#### 6.7 Shopping

Ushuaia is a very touristy town and as such will have many stores, including souvenir shops. All stores are tax-free to tourists. You may need to show your passport at some stores to be tax exempt. The Argentine culture is similar to many other Hispanic cultures where most everything closes on Sundays. Please be cognizant of this.

#### **6.8 Food**

The food in Argentina is fresh. As such it may be hard to find things like microwave dinners. The diet is heavy on meat but abundant in vegetables and fruit. Pastas and breads are also a big thing (fresh bakeries and trattorias are common, as well as steakhouses). There are vegan options in town as well as at the hotel.

Downtown has several restaurants that offer a variety of foods. Tipping may or may not be expected, but it does not have to be as high as in the US.

Grocery stores and small markets are prevalent through the town. Most of these will be closed on Sundays, but should be open the rest of the week.

For any questions, comments, or concerns, please contact Eugenia De Marco (Operation IceBridge Project Manager) at eugenia.l.demarco@nasa.gov.